Summer 2011 Climate Information

Summer 2011 began on Tuesday, June 21, 2011 at 1216 PM CDT, and will officially end this year on Friday, September 23, 2011 at 405 AM CDT, when the Fall of 2011 begins.

The table below lists a climate summary at Austin, Del Rio, and San Antonio for June to September. The average high and low, based on the latest 30 Year 1971 to 2000 Normals are listed for June, July, August, and September. The All-Time High and All-Time Low for each month is also listed. For Precipitation, the latest 30 Year 1971 to 2000 Normal, is shown under Average Rainfall, and the All-Time Driest and Wettest June, July, August and September of Climate Record is shown.

Austin/Mabry

Month	High	Low	All time High	All time Low	Average Rainfall	All Time Driest	All Time Wettest
June	90.9	71.1	108	51	3.81	0	14.96
July	95.0	73.4	109	57	1.97	0	12.80
August	95.6	73.3	110	58	2.31	0	10.88
September	90.1	68.8	112	41	2.91	0	20.78

Austin/Bergstrom

Month	High	Low	All time High	All time Low	Average Rainfall	All Time Driest	All Time Wettest
June	91.1	71.8	109	56	3.42	Trace	15.59
July	95.2	74.0	106	62	2.03	0	9.77
August	95.3	73.6	108	60	2.51	Trace	8.91
September	90.1	68.9	112	45	2.88	0.02	9.36

Month	High	Low	All time High	All time Low	Average Rainfall	All Time Driest	All Time Wettest
June	93.7	72.1	112	49	2.34	Trace	13.71
July	96.2	74.3	111	63	2.02	Trace	13.18
August	96.0	74.1	109	62	2.16	0	20.93
September	90.6	69.4	110	43	2.06	Trace	15.79

San Antonio

Month	High	Low	All time High	All time Low	Average Rainfall	All Time Driest	All Time Wettest
June	91.4	71.6	107	48	4.30	Trace	11.95
July	94.6	74.0	106	60	2.03	0	16.92
August	94.7	73.6	108	57	2.57	0	11.14
September	90.0	68.8	111	41	3.00	0.01	15.78

Summer Climate Summary

For Central and South Central Texas, July and August are nearly equally hot on average; however, the extremes for the summer show September 5, 2000 as the hottest day for Austin and San Antonio and June 9, 1988 the hottest day at Del Rio from June to September. One of the hottest 5 day periods of any summer came September 1st to 5th, 2000. On Tuesday, September 5, 2000 an all time record high of 112 came at Austin Mabry and Austin Bergstrom and another all time record high of 111 was observed at San Antonio. The all time high at Del Rio was 112 on June 9, 1988. In Year 2000 the hottest day at Del Rio was 110 on September 6th, 2000.

The summer of 2010 was a transitional summer from stormy weather and more rain than usual in June and July of 2010 to warmer and much drier in August 2010. Although June to August 2010 was not one of the hotter June to August periods like 2009, overall conditions warmed significantly in August 2010 from moderated conditions in July. In the Summer of 2010 a number of 100 degree days came in August followed by a few more in early September.

June to August 2010 tied for the 5th warmest at Austin Mabry with 1956 and 2006, and tied for the 10th warmest June to August at San Antonio with 1948, 1956, 1964, and 1993. At Del Rio, after a very wet spring and early summer in 2010, it was not one of the warmer June to August periods in the Summer of 2010.

The summer of 2009 had the warmest June to August periods of record at Austin, Del Rio and San Antonio. The warmest June to August periods of record at Austin, Del Rio, and San Antonio are listed below.

	Austin Mabry	Del Rio	San Antonio
1.	88.4 Jun-Aug 2009	88.8 Jun-Aug 2009	87.8 Jun-Aug 2009
2.	86.7 Jun-Aug 1998	88.7 Jun-Aug 1980	86.2 Jun-Aug 1994
	86.7 Jun-Aug 2008	_	86.2 Jun-Aug 1980

In 2009 a record number of 100 degree days were observed at Austin Bergstrom with 55 one hundred degree days and San Antonio with 59 one hundred degree days. At Austin Mabry the 68 one hundred degree degrees days in 2009 was 1 day less than the record of 69 in 1925. At Del Rio the 65 one hundred degree days in 2009 came in 5th place after a record of 78 in 1953; 72 in 2001 and 69 one hundred degree days in 1951 and 1998.

The number of 100 degree days in 2009 across South Central Texas is listed below.

Austin Mabry - 68
Austin Bergstrom International Airport - 55
Burnet - 27
Del Rio - 65
Hondo - 68
Kerrville - 31
La Grange - 54
Llano - 50
New Braunfels - 72
Pleasanton - 58
San Antonio International Airport - 59
San Antonio Stinson Field - 70
San Marcos - 63
Uvalde - 67

July 2009 was the warmest month and July on record for Austin Mabry and San Antonio. July 1998 was the warmest month and July for Del Rio.

Moderated temperatures have come in the summer also, as this was common in the summers of 2004 and 2007. After the heavy rains and flooding from late June to Mid July 2002, conditions moderated somewhat for a few weeks, and then the days warmed up again in August to the early part of September 2002. In July of 1976 the area was affected by a rainy period from early July to around July 20th in 1976. July 1976 was the coolest July of record for Del Rio and Austin Bergstrom. At San Antonio July of 1976 tied with July 1903 for the coolest July of record. At Austin Mabry July 1976 was the 4th coolest July. July 1907 was the coolest of record for the Austin City climate location, now Austin Mabry.

Although many summers over parts of Central and South Central Texas have been hot and dry, some summers have brought periods of heavy rain and flooding. A few floods from the past are mentioned here. The Summer of 2007 was very wet, and brought many flooding episodes. Rainfall in 2007 was wet from January through August and early September, with occasional flood events. In August of 2007, heavy rains associated with Tropical Storm Erin affected the area on August 16th. The heavy rains brought 5.73 inches of rain to San Antonio International Airport and 9.60 inches of rain at San Antonio Stinson Field on

Thursday, August 16th, 2007. A few more rain events followed in late August and early September of 2007. This changed to drier weather conditions by Mid September 2007 that lasted until September of 2009, when rainfall began to pick up again.

For Austin July of 1919, with 12.80 inches of rain, was the wettest July of record. In June 1935 widespread heavy rains and floods came to the area. At Del Rio 13.78 inches of rain fell, making June 1935 the wettest June for Del Rio. Rainfall variability was very extreme in the 1950s, when a long drought came from 1951 to 1956. Although these were drought years, it was briefly interrupted by floods in 1952 and in the summer of 1954. The 1954 flood was the result of the remnants of Hurricane Alice that moved near and north of Del Rio in late June of 1954. In the midst of a long drought, a flood occurred from north of Del Rio, downstream on the Rio Grande River to Eagle Pass, Laredo, and south of Laredo. Over 30 inches of rain fell north of Del Rio in late June of 1954. In July of 1976 heavy rains produced flooding west of San Antonio to the Rio Grande. Del Rio had its wettest July of record in 1976 with 13.18 inches of rain. A similar flood came in late June to Mid July of 2002 further east over the Texas Hill Country and adjacent parts of South Central Texas. During this flood event San Antonio had the wettest July with 16.92 inches of rain. Heavy rains in the summer of 2003 brought a few flood events, and this was followed by heavy rain events in the following summer in June 2004, that brought flooding to the area.

An extreme flood event came to the area at the end of the summer season in 1921. From September 8 to 10, 1921 a widespread flood event affected parts of Central and South Central Texas, from Williamson County and Austin to San Antonio. The greatest amount of rain fell in Williamson County. A hurricane entered northeast Mexico on September 6th, 1921. The remnants of this hurricane moved north across South Texas the 7th and 8th. As the remnants of the hurricane arrived over South Central and Central Texas, a very heavy rain event followed. This flood caused 215 fatalities. Thrall in eastern Williamson County received 23.4 inches of rain in 6 hours; 31.8 inches in 12 hours; and 38.2 inches of rain in 24 hours. Taylor had 23.11 inches of rain in 24 hours. Storm total rainfall at Thrall was 39.70 inches and at Taylor 23.98 inches. Austin had its wettest day of record September 9, 1921 with 15.00 inches of rain and then 4.03 inches of rain the following day on the 10th. In a 24 hour period Austin received 18.23 inches of rain from September 9th to 10th, 1921. September 1921 is the wettest month of record for Austin with 20.78 inches of rain. San Antonio experienced serious flooding as heavy rains fell on San Antonio and the Olmos Basin. San Antonio received 6.83 inches on September 9, 1921. During the September 8 to 10, 1921 flood, northern parts of Bexar County received 18 inches of rain in 24 hours.

Although cold frontal passages are not as common in the summer, in some years cold fronts made it across the region. In late June of 1974 and late June of 1976 a cool front moderated temperatures for several days. In July of 1990, a weak cool front made its way across the area July 12th. This was followed by increasing clouds and rain the following weekend of July 14 and 15, 1990 through Monday, July 16, 1990. Cool fronts moving across the area in August of 1974 and August of 1992 brought scattered rains to the region. A strong cold front in early June of 1919 left lows on June 3rd, 1919 of 48 at San Antonio, 49 at Del Rio, and 52 at Austin. Another strong cold front in early June of 1926 left a low of 51 at Austin on June 6th, 1926. A strong cold front in late August of 1915 left lows of 58 at Austin and San Antonio, and 60 at Del Rio on August 31st, 1915.

At the end of summer in mid to late September, the coolest lows for the summer season was 45 at Austin Mabry September 18, 1903; 47 at Austin Bergstrom September 19, 1981; and 46 at San Antonio September 19, 1981. At Del Rio the coolest lows were 51 September 20, 1971 and 50 September 21, 1913. Summer in 2011 officially ends on Friday, September 23, 2011 at 405 AM CDT, when the Fall of 2011 begins.

To view the sunrise and sunset for a specific date and location, <u>See Complete Sun and</u> Moon Data for One Day from the U.S. Naval Observatory.